ABSTRACT

In one aspect of the invention, there is provided a method and apparatus for early detection of subacute, potentially catastrophic infectious illness in a premature newborn infant. The method comprises: (a) continuously monitoring heart rate

5   variability in the premature newborn infant; and (b) identifying at least one characteristic abnormality in the heart rate variability that is associated with the illness. This method can be use to diagnose illnesses such as, but not limited to, sepsis, necrotizing enterocolitis, pneumonia and meningitis. In another aspect of the present invention, there is provided a method and apparatus for early detection of

10   subacute, potentially catastrophic infectious illness in a patient. The method comprises: (a) continuously monitoring the patient's RR intervals; (b) generating a normalized data set of the RR intervals; (c) calculating one or more of (i) moments of the data set selected from the third and higher moments and (ii) percentile values of the data set; and (d) identifying an abnormal heart rate variability associated with

15   the illness based on one or more of the moments and the percentile values.